

utility patent application serial no. 09/997,282, filed November 29, 2001, and copending utility patent application serial no. ~~09/997,282~~,^{10/023,481} entitled "Wireless Local Area Network System with Mobile Access Point Station Determination," filed December 17, 2001, the disclosures which are hereby incorporated by reference in their entirety.

In many of these types of systems, the amount of signal interference continues to increase to the point that some of the communication systems lose their effectiveness. There are some techniques that mitigate these effects, such as the use of spread spectrum and antenna diversity, as disclosed in the above identified patents and applications. In any event, if the wireless and real time location networks increase in number, the spread spectrum and diversity techniques are not sufficiently effective.

In the wireless environment, such as a wireless local area network and real time location system, the environment is crowded with a number of communication signals and other interfering signals that occupy the same frequency bands or channels. Also, the environment is typically contaminated by multipath reflections from both the desired communication signal emanating from a desired transmitter, such as a mobile device, TAG, or mobile access point, and interfering signals emanating from interfering sources, such as other networks and antennae. Reflections can occur by wave reflecting services, including walls, buildings, other antenna, natural earth landmarks and other reflecting sources known to those skilled in the art.

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